

Borrer and Mr. Newbould. The plant is so like *M. officinalis* (Willd.) that it has probably been overlooked in many places; indeed I now (Aug. 2) find that it is far from rare between Cambridge and the Gogmagog Hills. The proportions of the parts of its flower, and the shape and surface of its pod, are so different from those of *M. officinalis* (which also grows near Cambridge), that a very slight examination of the two plants is sufficient to show their specific distinctness. In the 2nd edition of his Synopsis, Koch has altered the names of these plants, calling the present species *M. officinalis* (Desr.); the *M. officinalis* (Willd.) he names *M. macrorhiza* (Pers.).—C. C. B.

ON THE PARASITICAL HABITS OF SCROPHULARINEÆ. BY PROFESSOR HENSLAW.

The supposed parasitism of the Scrophularineæ (in *Euphrasia*, *Odontites*, *Melampyrum*, *Rhinanthus*, &c.), detected by Decaisne, has more than once been called in question. You may remember that I stated, in the *Gardeners' Chronicle* last autumn, my own conviction of the fact, and mentioned my having obtained the roots of *Euphrasia officinalis* and *Odontites rubra* attached by succors to the roots of grass. This fact appeared to me sufficiently satisfactory at the time; but I determined to follow up the inquiry by sowing seeds of *Rhinanthus* and *Odontites*, both near and at a distance from other plants. The results of my experiment are as follows:—Several plants of *Rhinanthus Crista-galli* came up at a distance from other plants, but did not thrive; they scarcely attained an inch or an inch and a half in height; only two produced one flower each, and then the whole withered without any seed being formed. A single plant, which came up close to a plant of wheat, attained the usual dimensions and flowered freely, but I neglected to observe whether its seeds were perfected. The specimens of *Odontites rubra* came up more freely than the *Rhinanthus*; and they all flowered, both those that were near other plants and those at a distance. On examining them I found abundance of examples of the succors, or succor-like protuberances, on their roots attached to the roots of wheat and rye; and, in two instances, I traced fibres of the *Odontites* spreading more than a foot from the spot where the plant was growing till they had reached and intermixed with the fibres of the rye. In some cases I could detect no appearance of succors, and nothing like an attachment to the roots of other plants.

I learn from Mr. Bentham that he has met with instances where there were certainly none of the succor-like appendages to the roots of some specimens of *Euphrasia*, *Melampyrum*, and *Odontites* examined by him. There is, therefore, something yet to be ascertained concerning the precise character of the parasitism of these plants, if indeed they be truly parasitic. As the question is of some importance to cultivators, I would suggest the following experiment to those who have fields in which *Rhinanthus Crista-galli* is abundant. Let them keep a space of about three yards square perfectly cleared of this plant for two or three years, and observe whether the grass on that patch flourishes beyond that which surrounds it. I shall pro-

pose repeating my own garden experiments with more care than I had thought necessary this year, having hitherto felt sufficiently convinced that Decaisne's statement was correct.

I send you a preparation in spirits of the succors (?) on the roots of *Odontites rubra*, attached to the fibres of wheat, and you will see what a parasitic aspect they have assumed, whatever their real functions may be. I am very desirous of procuring seeds of *Melampyrum arvense* for experiment, and if any of your correspondents could procure me a few, I shall feel much obliged to them. Hitcham, Sept. 14.—*Gardeners' Chronicle*, Sept. 23.

METEOROLOGICAL OBSERVATIONS FOR AUG. 1848.

Chiswick.—August 1. Heavy showers. 2. Very fine. 3. Rain. 4. Cloudy and fine. 5. Heavy showers. 6. Fine: cloudy: showery. 7. Very fine. 8. Fine: rain. 9. Clear: showers: clear. 10. Very fine: rain at night. 11. Overcast: rain. 12. Cloudy. 13. Overcast: rain. 14. Heavy rain. 15. Densely clouded. 16. Foggy: overcast: clear. 17. Hazy and damp: overcast. 18. Very fine. 19. Rain. 20. Very fine. 21. Heavy rain: showery. 22. Heavy shower: clear. 23. Fine. 24. Showery: clear, with lightning at night. 25. Hazy: rain: cloudy and fine. 26. Uniformly overcast: rain. 27. Rain. 28. Cloudy: slight rain. 29. Fine. 30. Very fine. 31. Very fine till 5 P.M., when a very heavy thunder-storm commenced and continued upwards of two hours—an inch of rain falling in the time.

Mean temperature of the month	58°·74
Mean temperature of Aug. 1847	62·47
Mean temperature of Aug. for the last twenty years	62·32
Average amount of rain in Aug.	2·41 inches.

Boston.—Aug. 1. Cloudy: rain early A.M. 2. Fine. 3. Rain: rain A.M. 4. Fine. 5. Rain: rain A.M. 6. Fine: rain P.M. 7, 8. Fine. 9. Fine: hail-storm and rain A.M. 10, 11. Fine. 12. Fine: rain P.M. 13. Fine. 14. Rain. 15. Fine. 16, 17. Cloudy. 18. Fine: rain P.M. 19. Cloudy: rain A.M. and P.M. 20. Fine. 21. Rain: rain A.M. and P.M.: very stormy. 22. Cloudy: rain A.M. and P.M. 23, 24. Fine. 25. Fine: rain P.M. 26. Cloudy: rain A.M. 27. Cloudy: rain P.M. 28. Cloudy. 29—31. Fine.

Applegarth Manse, Dumfries-shire.—Aug. 1. Fine: one slight shower. 2. One shower. 3. Showery. 4. Slight showers. 5. Fine throughout: thunder. 6. Fine: shower P.M. 7. Fine and fair. 8. Heavy rain all day: thunder: flood. 9. Frequent showers. 10. Frequent showers: thunder. 11, 12. Fair and fine. 13. A few drops: fine. 14, 15. Fair and fine. 16. Fair and fine: a few drops P.M. 17. Heavy rain A.M.: cleared and fine. 18. Fine A.M.: heavy rain P.M. 19. Heavy rain A.M.: very high flood. 20. Fine, but cloudy A.M.: shower P.M. 21. Dull A.M.: rain P.M. 22. Showers. 23. Gentle showers: thunder. 24. Showers. 25. Fair and fine. 26. Complete day of rain: flood. 27. Fair and fine. 28. Rain: cleared P.M. 29. Fine till 6 P.M.: then heavy rain. 30. Fair till 11 A.M.: rain and hail P.M. 31. Very fine day throughout.

Mean temperature of the month	53°·7
Mean temperature of Aug. 1847	57·1
Mean temperature of Aug. for the last twenty-five years	57·1
Rain in Aug. 1847	2·23 inches.
Average amount of rain in Aug. for twenty years	3·60 „

Sandwick Manse, Orkney.—Aug. 1, 2. Bright: clear. 3. Cloudy: clear. 4—6. Bright: clear. 7. Cloudy: clear. 8. Bright: clear: aurora. 9. Bright: rain. 10. Showers. 11. Showers: clear: cloudy. 12. Cloudy: clear. 13. Clear. 14, 15. Fine. 16. Bright: frost: clear. 17. Rain: clear. 18. Clear: cloudy. 19. Rain: showers. 20. Showers: clear. 21. Clear: aurora. 22. Clear: cloudy. 23. Showers. 24. Clear. 25. Clear: frost: fine. 26. Cloudy: showers. 27. Clear. 28. Cloudy: clear: drops. 29. Clear: drops. 30. Clear: showers. 31. Bright: cloudy.